

### **REMARKS**

Applicant has carefully reviewed and considered the Office Action mailed on December 9, 2009, and the references cited therewith.

Claims 14-17, 19, 20, 25, and 27-31 were previously withdrawn by the Applicant, and claim 26 has been withdrawn by the Examiner. As a result, claims 1-13, 18, 21-24, 32, and 33 are now pending in this application.

Independent claims 1, 9, 18, and 23 have been amended. The amendment of these claims introduces no new matter. Support for the amendment of these claims can be found in the Specification at least at paragraphs 0029, 0035, 0053-0056, 0059-0063, and 0065, and FIGs. 1A, 1B, 2, 6A, 6B, and 7.

35 USC § 102 Rejection

Claim 9 was rejected under 35 U.S.C. § 102(b) as being anticipated by Kim (U.S. Publication No. 2001/0021051) according to the Examiner.

Claim 9 has been amended to recite a bias control and a modulation control that is distinct from the bias control. This claim has also been amended to recite a current signal having a bias mode adjustable by a bias control circuit and a modulation mode that is separately adjustable by a distinct modulation control circuit. These features are neither disclosed nor suggested by Kim. This reference therefore fails to disclose all features of claim nine as amended. Hence, for at least these reasons, claim 9 as amended is not anticipated by Kim.

35 USC § 103 Rejection

Claims 1-8, 18, 21-23 and 32-33 were rejected under 35 U.S.C. § 103(a). The Examiner has argued that these claims are unpatentable over Kim in view of Chun et al. (U.S. Patent No. 6,294,933).

With respect to claim 1, this claim has been amended to recite a first current signal having an adjustable bias mode and a separately adjustable modulation mode. This claim has been further amended to recite that the modulation mode is controlled by a modulation control circuit, and that the bias mode is controlled by a separate bias control circuit. These features are neither disclosed nor suggested by Kim. Nor are these features disclosed or suggested by Chun. For at least of these reasons, therefore, claim 1 as amended is not rendered obvious by these references, whether considered alone or in any reasonable combination.

The Examiner also argues that claims 2-8 are obvious in light of the Kim and Chun references. These claims depend from claim 1 as amended, and the rejection of these claims is premised on the alleged obviousness of claim 1. Moreover, each of claims 2-8 includes all features of claim 1 as amended. Given that claim 1 as amended includes at least one feature that is not disclosed or suggested by Kim or Chun, claims 2-8 likewise each include at least one feature that is not disclosed or suggested by these references. For at least this reason, none of claims 2-8 are obvious over Kim and Chun, whether considered alone or in any reasonable combination.

The Examiner has also rejected claim 18, arguing that this claim is obvious over Kim in view of Chun. Claim 18 has been amended to recite that the first transimpedance amplifier is configured to produce a differential voltage, and is further configured to difference the components of the differential voltage to produce the first differential signal. These features are neither disclosed nor suggested by either reference. For at least these reasons, claim 18 as amended is not rendered obvious by Kim or Chun, whether these references are considered separately or in any reasonable combination.

The Examiner has also rejected claims 21 and 22, arguing that these claims are obvious over the Kim and Chun references. These claims depend from claim 18 as amended, and the Examiner's rejection of these claims is premised on the alleged obviousness of claim 18. Each

of claims 21 and 22 necessarily includes all features of claim 18 as amended. As discussed above, claim 18 as amended includes features not disclosed or suggested by Kim or Chun. Hence claims 21 and 22 each include features not disclosed or suggested by these references. Claims 21 and 22 are therefore not obvious over Kim and Chun, whether considered alone or in any reasonable combination.

Claim 23 was also rejected by the Examiner, who argues that this claim is obvious over Kim and Chun. This claim has been amended to recite a laser driver having a bias control and a modulation control that is separate from the bias control. Claim 23 has been further amended to recite a first current signal having a bias mode adjustable by a bias control circuit and a modulation mode adjustable by a modulation control circuit separate from the bias control circuit. These features are not disclosed or suggested by either Kim or Chun. For at least this reason, claim 23 as amended is not obvious over these references, whether considered alone or in any reasonable combination.

Claims 32 and 33 are also rejected by the Examiner, who argues that these claims are obvious over Kim and Chun. These claims depend from claim 23 as amended and therefore include all features thereof. Given that Kim and Chun fail to disclose or suggest all features of claim 23 as amended, these references likewise fail to disclose or suggest all features of any of claims 32, and 33. For at least this reason, claims 32 and 33 are not obvious over Kim and Chun, whether these references are considered alone or in any reasonable combination.

Claims 10 and 13 were rejected under 35 U.S.C. § 103(a). The Examiner has argued that these claims are unpatentable over Kim in view of Bosch et al. (U.S. Patent No. 6,130,562). The rejection of these claims is premised on the Examiner's contention that claim 9, from which claims 10 and 13 depend, is anticipated by Kim. As discussed above, claim 9 as amended includes features that are not disclosed or suggested by Kim. Nor are these features disclosed or suggested by Bosch. Because claims 10 and 13 each include all features of claim 9 as amended, these claims also include features that are neither disclosed nor suggested by the cited art. For at least this reason, claims 10 and 13 are not obvious over Kim and Bosch, whether these references are considered alone or in any reasonable combination.

Claims 11 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Bosch and further in view of Tsai (U.S. Patent No. 6,735,228). The rejection of these

claims is premised on the Examiner's contention that claim 9, from which claims 11 and 12 depend, is anticipated by Kim. As discussed above, claim 9 as amended includes features that are not disclosed by Kim. Nor are these features disclosed by Bosch or Tsai. Because claims 11 and 12 each include all features of claim 9 as amended, these claims also include features that are neither disclosed nor suggested by the cited art. For at least this reason, claims 11 and 12 are not obvious over Kim, Bosch, and Tsai, whether these references are considered alone or in any reasonable combination.

Claim 24 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Chun and further in view of Bosch. This claim depends from claim 23 as amended and therefore includes all features thereof. Given that claim 23 as amended includes features not disclosed or suggested by the Kim and Chun references, claim 24 likewise includes features not disclosed or suggested by the Kim and Chun. Moreover, these added features, discussed above with respect to claim 23 as amended, are also not disclosed or suggested by Bosch. For at least this reason, claim 24 is not obvious over Kim, Chun, and Bosch, whether these references are considered alone or in any reasonable combination.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (301-421-1449) to facilitate prosecution of this application.

Respectfully submitted,

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